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Suite 821

Robert A. Culpepper Attorney Legal Department

1600 Hampton Street Columbia, South Carolina 29201 803 253-5953 Fax: 803 254-1731

March 6, 2000

The Honorable Gary E. Walsh Executive Director Public Service Commission of SC Post Office Drawer 11649 Columbia, South Carolina 29211 LE C E UTILITIES DEPARTMENT

Re: Proceeding to Establish Geographically Deaveraged Rates for Unbundled Network Elements and Network Element Combinations

Dear Mr. Walsh:

Enclosed please find for filing in the above-referenced matter an original and ten copies of a Petition on behalf of BellSouth Telecommunications, Inc. ("BellSouth") in the above-referenced matter. The exhibits attached to this Petition include the direct testimony of Alphonso J. Varner and Daonne Caldwell.

Please be advised that BellSouth considers the exhibits to Ms. Caldwell's testimony to be proprietary in nature, and accordingly is filing the proprietary version of this exhibit under seal. BellSouth respectfully requests that the Commission maintain the confidentiality of this exhibit.

With highest regards,

Robert A. Culpepper

RAC/jbm Enclosure

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@ BELLSOUTH

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S. C. PUBLIC SERVICE COMMIS

UTILITIES DEPARTMENT

March 8, 2000

The Honorable Gary E. Walsh Executive Director Public Service Commission of SC Post Office Drawer 11649 Columbia, South Carolina 29211

> Re: Proceeding to Establish Geographically Deaveraged Rates for Unbundled Network Elements and Network Element Combinations

Dear Mr. Walsh:

On March 6, 2000, BellSouth Telecommunications, Inc. ("BellSouth") filed a petition requesting the Commission open a docket to establish, among other things, geographically deaveraged rates for unbundled network elements. Along with the petition, BellSouth filed the direct testimony of Alphonso J. Varner and Daonne Caldwell. Mr. Varner's testimony contained one exhibit consisting of five pages (Exhibit AJV-1). The first two pages of the exhibit contained certain calculation errors.

Accordingly, please find enclosed for filing an original and ten copies of a revised Exhibit AJV-1 to Mr. Varner's testimony. If you have any questions or comments, please do not hesitate to contact me.

Sincerely,

Robert A. Culpepper

RAC/nml Enclosure

MAR 0 8 2000





SOUTH CAROLINA PROPOSED DEAVERAGED RATES FOR UNE LOOPS AND COMBINATIONS

UNE LOOPS (Recurring Rates)		Lo	Statewide	Zor	ne 1	Zon	e 2	z	one 3
2-wire analog voice grade loop - service level 1		\$	22.49	S	18.48	\$	27.87	\$	36.91
2-wire analog voice grade loop - service level 2		\$	26.25	S	21.57	\$	32.53	\$	43.08
4-wire analog voice grade loop		\$	35.86	5	29.47	\$	44.44	\$	58.85
2-wire ISDN digital grade toop		\$	32.47	S	26.68	5	40.24	\$	53.29
2-wire asymmetrical digital subscriber line (ADSL) compatible loop	A STATE OF THE STA	\$	20.81	\$	17.10	\$	25.79	\$	34.15
wite high bit rate digital subscriber line (HDSL) compatible loop		\$	14.86	S	12.21	\$	18.41	\$	24.39
4-wire high bit rate digital subscriber line (HDSL) compatible loop		\$	19.73	S	16.21	\$	24.45	\$	32.38
4-wire-DS1 digital loop		\$	72.55	\$	59.61	\$	89.90	\$	119.06
4-wire 56 or 64 Kbps digital grade loop	1000	\$	41.70	5	34.26	S	51.67	\$	68.43
2-wire unbundled copper loop		\$	23.00	5	18.90	\$	28.50	\$	37.75
0 8 5000			Statewide	T					
UNE COMBINATIONS (Recurring and Non-Recurring Rates) 1		1	Combination Rate	Zon	ne 1	Zone	e 2	Z	one 3
Loop/Port									
2-wire analog-voice grade loop SL1 and port, Recurring	1,000	\$	24.40		20.71		29.35		37.68
2-wire voice grade loop		3	20.71		17.02		25.66	\$	33.99
2-wire port		\$	3.69	\$	3.69	\$	3.69	\$	3.69
NR-Installation and Disconnect-Electronic-First	F-1-25	\$	1.59	10000	Y. V.				N 90 E
NR-Installation and Disconnect-Electronic-Additional	0.0.656	\$	0.40		100 7.	1000000			
NR-Installation and Disconnect-Manual-First	A. 1555	\$	43.19	10.00					
NR-Installation and Disconnect-Manual-Additional	Art Section	\$	9.91	100000	24.50		1000		
NR-Subsequent database update - Electronic		\$	0.71	-X-80	1000	les contract	- 100		
NR-Subsequent database update - Manual		\$	9.62						
nhanced Extended Loops (EELs)		Ť	0.36	1		1			
wire analog voice grade loop SL2 and DS1 ded interoffice transport with channelization ²		1		1		 			-
Fixed 1st circuit in DS1, Recurring		\$	269.48	S 2	64.00	\$ 27	75.76		200.24
2-wire voice grade loop		\$			64.80			_	286.31
DS1 facility termination			26.25	_	21.57		32.53	\$	43.08
		\$	94.98	-	94.98		94.98	\$	94.98
DS1 system		\$	146.49		46.49	-	_	_	146.49
Voice grade plug-in		\$	1.76		1.76			\$	1.76
Interoffice transport - ded - DS1 per mile. Recurring		\$	0.7598		.7598				0.7598
Per additional circuit in same DS1, Recurring		\$	28.01		23.33	\$ 3	34.29	\$	44.84
2-wire voice grade loop		\$	26.25	\$	21.57	\$ 3	32.53	\$	43.08
Voice grade plug-in		\$	1.76	5	1.76	\$	1.76	\$	1.76
NR-Installation and Disconnect-Electronic-First		\$	25.31	70.0					Sec.
NR-Installation and Disconnect-Electronic-Additional		\$	24.79	100		Sec.			555
NR-Installation and Disconnect-Manual-First		\$	81.85		1,21,630		122	er.	
NR-Installation and Disconnect-Manual-Additional		\$	43.81	10000	7.555		11/3		7.787
-wire analog voice grade loop and DS1 ded interoffice transport with channelization ²								-	
Fixed 1st circuit in DS1, Recurring		\$	280.53	\$ 2	74.14	\$ 28	9.11	\$:	303.52
4-wire voice grade loop	17819-5-1	\$	35.86	\$	29.47	\$ 4	4.44	5	58.85
DS1 facility termination		\$	94.98		94.98		4.98	S	94.98
DS1 system		\$	146.49		46.49	_			146.49
Voice grade plug-in		\$	3.20	\$	3.20			\$	3.20
Interoffice transport - ded - DS1 per mile, Recurring		\$	0.7598		.7598				7598
Per additional circuit in same DS1, Recurring		\$	39.06		32.67			5	62.05
4-wire voice grade loop		\$	35.86		29.47		_	\$	58.85
Voice grade plug-in		\$	3.20	S	3.20		3.20	\$	
NR-Installation and Disconnect-Electronic-First		\$	25.31	3	3.20	\$	3.20	3	3.20
NR-Installation and Disconnect-Electronic-Additional									
NR-Installation and Disconnect-Manual-First		\$	24.79	1000					
NR-Installation and Disconnect-Manual-Additional		\$	81.85					200	The said
	100000000000000000000000000000000000000	\$	43.81		3.30			Mas ?	cara.
S0 digital 56 or 64 kbps loop and DS1 ded interoffice transport with channelization 2	1905								
Fixed 1st circuit in DS1, Recurring		\$	286.37		78.93				313.10
DS0 56 or 64 kbps loop		\$	41.70		34.26		1.67	S	68.43
DS1 facility termination	5.50	\$	94.98	\$	94.98	\$ 9	4.98	\$	94.98
DS1 system	32232	\$	146.49	\$ 14	46.49		6.49		46.49
Voice grade plug-in		\$	3.20	\$	3.20		3.20		3.20
Interoffice transport - ded - DS1 per mile, Recurring		\$	0.7598		7598		7598		7598
Per additional circuit in same DS1, Recumng	1.25	\$	44.90		37.46		4.87		71.63
DS0 56 or 64 kbps loop		\$	41.70		34.26		1.67		68.43
Voice grade plug-in		\$	3.20		3.20		3.20		3.20
NR-Installation and Disconnect-Electronic-First		\$	25.31						
NR-Installation and Disconnect-Electronic-Additional		\$	24.79						
NR-Installation and Disconnect-Manual-First		\$	81.85	70.00				8.7***	
NR-Installation and Disconnect-Manual-Additional		\$	43.81						-
S1 digital loop and DS1 ded interoffice transport ²	V Columbia	-	40.01					-	
Fixed, Recurring	70.00		407.55					_	
		\$	167.53		4.59		4.88		14.04
DS1 loop		\$	72.55		9.61		9.90		19.06
DS1 facility termination		\$	94.98		4.98		4.98		94.98
Interoffice transport ded DS1 oes mile Beautiful	0.000	\$	0.7598	\$ 0.	7598	\$ 0.7	598	\$ 0	7598
Interoffice transport - ded - DS1 per mile, Recurring		\$	25.31					227	
NR-Installation and Disconnect-Electronic-First									
NR-Installation and Disconnect-Electronic-First NR-Installation and Disconnect-Electronic-Additional		\$	24.79		12				100
NR-Installation and Disconnect-Electronic-First NR-Installation and Disconnect-Electronic-Additional NR-Installation and Disconnect-Manual-First	S. Hann	\$	24.79 81.85		. T. P. W.	12.83			400
NR-Installation and Disconnect-Electronic-First NR-Installation and Disconnect-Electronic-Additional	3,21	\$	24.79		200				

Zone Make-up Zone 1 (RG 6-7)

Zone 2 (RG 4-5) Zone 3 (RG 1-3)

See attached sheets for calculations to support combinations in each Zone.

See attached sheets for calculations to support combinations in each Zone.

Combination rate includes the local loop (loop from BellSouth's central office to end-user's premises), interoffice transport between Bellsouth's offices), and channelization necessary for 2-wire, 4-wire, and DSO combinations. A collocation cross-connect may also need to be purchased to complete the circuit.

2/28/00

Interconnection Pricing
File: SCDeRt1M.xls



Calcula	tions for Loop	calculations for Loop/Port Compinations	lations	
¥	Ω.	ပ	۵	Ш
	SL1 Combo Line Port	Line Port		
	Loop Rate in	Loop Rate in SC	Proposed	
	SC Combo	Combo	Deaveraged	Deaveraged Calculation for Proposed
Loop/Port	Study	Study	Rates	Deaveraged Rate
State-wide Average Rate	\$ 20.71	\$ 3.69	\$ 24.40	24.40 D=B+C
Zone 1 Deaveraged Rate	\$ 17.02	\$ 3,69	\$ 20.71	20.71 D=(\$20.71 x 82.17%)+C
Zone 2 Deaveraged Rate	\$ 25,66	\$ 3.69	69	29.35 D=(\$20.71 ×123.92%)+C
Zone 3 Deaveraged Rate \$	\$ 33.99 \$	\$ 3.69.		37.68 D=(\$20.71 x 164.11%)#C

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	Calcula	tions for Zone 1	Calculations for Zone 1 Enhanced Extended Loop Combinations	nded Loop Com	binations			
∢	Δ.	ပ 	۵	Ш	ш.	ဖ	I	_
			Voice grade	56 or 64 Kbps	Commission	Commission		•
		1/0		plug-in from	Approved	Approved		Calculation
		mutiplexer in		Multiplexer	Interoffice	Interoffice	Proposed	tor Proposed
	Deaveraged	SC Combo	Study in SC	Study in SC	DS1 Fixed	DS1 per Mile	Deaveraged	Deaveraged
Enhanced Extended Loons	Loop yate	oran	Compo orang	compo stato	Vale	Nate	Zujie i nate	י בטוופ ו אמופ
2-wire analog voice grade loop and DS1 dedicated interoffice transport with channelization								
Fixed 1st Circuit in DS1	\$ 21.57	\$ 146.49	\$ 1.76		\$ 94.98		\$ 264.80	264.80 H=B+C+D+F
Interoffice Transport - ded - DS1 per mile						\$ 0,7598	\$ 0.7598 H=G	H=G
Per additional Circuit in same DS1	\$ 21.57		\$ 1.76				\$ 23.33	23.33 H=B+D
4-wire analog voice grade loop and DS/I dedicated interoffice transport with channelization		· · · · · · · · · · · · · · · · · · ·						
Fixed 1st Circuit in DS1	\$ 29.47	\$ 146.49	\$ 3.20		\$ 94.98	_	\$ 274.14	274.14 H=B+C+D+F
Interoffice Transport - ded - DS1 per mile						\$ 0.7598	_	H=G
Per additional Circuit in same. DS1	\$ 29.47		\$ 3.20				\$ 32.67	32.67 HFB+D
DS0 digital 56 or 64 kbps loop and DS1 dedicated interoffice transport with channelization								
Fixed 1st Circuit in DS4	\$ 34.26	\$ 146.49	**	\$ 3.20	\$ 94.98		\$ 278.93	H=B+C+E+F
Interoffice Transport - ded - DS1 per mile Per additional Circult in same DS1	\$ 34.26			\$ 3.20		\$ 0.7598	0	.7598 H=G 37.46 H=B+E
DS1 digital loop and DS1 dedicated					•			
interoffice transport Fixed	\$ 59,61				\$ 94.98		•	154.59 H=B+G
Interoffice Transport - ded - DS.1 per mile						\$ 0.7598	\$ 0.7598	H=G

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	Calcula	tions for Zone	2'Enhanced Exte	Calculations for Zone 2'Enhanced Extended/Loop Combinations	binations			
⋖	8	ပ	0	ш	ш,	ဖ	Ī	_
			Voice grade	56 or 64 Kbps	Commission	Commission		
		1/0	_	plug-in from	Approved	Approved		Calculation
		Multiplexer in	Multiplexer	Multiplexer	Interoffice	Interoffice	Proposed	for Proposed
	Deaveraged	SC Combo	Study in SC	Study in SC	DS1 Fixed	DS1 per Mile	Deaveraged	Deaveraged
1	Loop Rate	Study	Compo Study	Combo Study	Rate	Rate	Zone 2 Rate	Zone 2 Rate
Enhanced Extended Loops 2-wire analog voice grade loop and DS1								
dedicated interoffice transport with								
channelization								-
Fixed 1st Circuit in DS1	\$ 32.53	\$ 146.49	.\$ 1.76		\$ 94.98		\$ 275.76	H=B+C+D+F
Interoffice Transport - ded - DS1 per mile				_		\$ 0.7598	\$ 0.760	E E
Per additiqnal Circult in same DS4,	\$ 32.53		\$ 1.76	-	•		\$ 34.29	Q+B=H
4-wire analog voice grade loop and DS1								
dedicated interoffice transport with				_	· <u></u>	·		
channelization								
Fixed 1st Circuit in DS1	\$ 44.44	\$ 146.49	\$ 3.20		\$ 94.98	•	\$ 289.11	H=B+C+0+F
Interoffice Transport - ded - DS1 per mile			-			\$ 0.7598	\$ 0.7598	- 5#
Per additional Circuit in same DS1	\$ 44.44		\$ 3.20					H=B+D
DS0 digital 56 or 64 kbps loop and DS1					•	- •		
dedicated interoffice transport with					-			
channelization								
Fixed 1st Oircuit in DS4	\$ 51.67	\$ 146.49	-	\$ 3.20	\$ 94.98	•	296.34	####U#B#H
Interoffice Transport - ded - DS/1 per mile						\$ 0.750 A	4 0.7598	
Per additional Oircuit in same DS1	\$ 51.67			\$ 3.20	-			H=B+E
DS1 digital loop and DS1 dedirated						· -		! !
interoffice transport			-	-		•		
Fixed	\$ 89.90		-		\$ 94.98			184 88 'H=8+G
Interoffice Transport - ded - DS1 per mile						\$ 0.7598	\$ 0.7598 H=G) : ====================================
					T	ļ	l	

	Calcu	lations	for Zone 3	Enhanced Exte	Calculations for Zone 3 Enhanced Extended Loop Combinations	binations				
∢	В		v	<u>a</u>	ш	ш.		ပ	I	_
				Voice grade	56 or 64 Kbps	Commission		Commission		
			1/0	plug-in from	plug-in from	Approved	_	Approved '		Calculation
		ž	Multiplexer in	Multiplexer	Multiplexer	Interoffice		Interaffice	Proposed	for Proposed
	Deaveraged		SC Combo	Study in SC	Study in SC	DS1 Fixed	****	DS1 per Mile	Deaveraged	
Enhanced Extended Loops	roop raw		,	forms compo	course orang			1000	בסוום ז ואמנם	
2-wire analog voice grade loop and DS1								•		•
dedicated interoffice transport with			••							
channelization							_			
Fixed 1st Circuit in DS1	\$ 43.08	38 8	146.49	\$ 1.76		\$ 94.98	- 8	•		286.31 H=B+C+D+F
Interoffice Transport - ded - DS1 per mile							₩	0.7598	\$ 0.7598 H=G	E.
Per additional Circuit in same DS4	\$ 43,08	 8		\$ 1.76						44.84 · H=B+D
				• •						
4-wire analog-voice grade loop and DS1										-
dedicated interoffice transport with										
channelization			,							
Fixed 1st Circuit in DS1	\$ 58.85	35 8	146.49	\$ 3.20		\$ 94.98	 æ	•		303.52 H=B+C+D+F
Interoffice Transport - ded - DS1 per mile			-				₩	0.7598	\$ 0.7598 H=G	H=0
Per additional Circuit in same DS1	\$ 58.85	33	-	\$ 3.20						62.05 H≓B+D
				.,,						
DS0 digital 56 or 64 kbps loop and DS1								•		
dedicated interoffice transport with				7.						
channelization										
Fixed 1st Circuit in DS1	\$ 68.43	13 \$	146.49		\$ 3.20	\$ 94.98	 8			313.10 'H=B+C+E+F
Interoffice Transport - ded - DS1 per mile						1-1-	69	0.7598	\$ 0.7598 H=G	H-G
Per additional Circult in same DS1	\$ 68:43	<u>ε</u>			\$ 3.20					71.63 H=B+E
DS1 digital loop and DS1 dedicated										
interoffice transport										
Fixed Intercept John DS4 per mile	\$ 1.19106	 Θ	-			\$ 94.98	۔۔۔۔ ھ	0.7500	\$ 214.04 H=B-	214.04 H=B+G
piul pd rog pan Todellat policiau		-					9	Ì	1	5

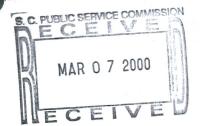
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BEFORE

THE PUBLIC SERVICE COMMISSION



OF SOUTH CAROLINA

DOCKET NO. 2000-0122-C

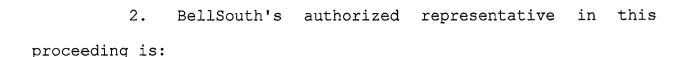
IN RE:

PROCEEDING TO ESTABLISH
GEOGRAPHICALLY DEAVERAGED
RATES FOR UNBUNDLED NETWORK
ELEMENTS AND NETWORK ELEMENT
COMBINATIONS

PETITION TO ESTABLISH CERTAIN RATES

Petitioner BellSouth Telecommunications, Inc. ("BellSouth"), pursuant to S.C. Code Ann. Regs. 103-836 (1976) and other applicable rules and regulations of the Public Service Commission of South Carolina ("the Commission"), respectfully petitions the Commission to initiate a docket for the purpose of establishing geographically deaveraged rates for unbundled network elements and certain network element combinations. In support of this Petition, BellSouth shows as follows:

1. BellSouth is a public utility presently providing comprehensive telecommunications services to its subscribers pursuant to intrastate tariffs approved by the Commission.



Caroline N. Watson
BellSouth Telecommunications, Inc.
1600 Hampton Street, Suite 821
Columbia, South Carolina 29201
Telephone: (803) 748 = 8700
Facsimile: (803) 254-1731

- 3. Federal Communications Commission ("FCC") Rule 51.507(f) requires state commissions to establish rates unbundled network elements in at least three cost-related zones differences. within the state to reflect geographic cost Although the FCC had stayed the effectiveness of this rule, that stay will be lifted effective May 1, 2000. Accordingly, the Commission required to establish rates for applicable is unbundled network elements in at least three geographic zones consistent with Rule 51.507(f) by May 1, 2000.
- 4. As set forth more fully in the attached testimony of BellSouth witnesses Alphonso Varner and Daonne Caldwell, BellSouth Believes that loops are the only unbundled network elements whose rates should be geographically deaveraged. Because the Commission approved statewide-average rates for unbundied loops in its June 1, 1998 Order in Docket No. 97-374-C, the Commission should deaverage these existing rates.
- 5. It also is appropriate for the Commission to establish rates for combinations of certain network elements that involve the use of the loop. Consistent with FCC Rule 51.315(b),

competing carriers in South Carolina may request access network elements that BellSouth currently combines network, which BellSouth may not separate upon request. Although the Commission established cost-based rates for numerous network elements and interconnection services in Docket 97-374-C, those rates represented the forward-looking cost of network elements that were truly unbundled. Because there may be cost differences in both recurring and nonrecurring rates when a competing carrier element BellSouth provisions certain network orders and combinations, BellSouth proposes that the Commission use this proceeding to establish rates for certain combinations, the recurring rates for which should be deaveraged by May 1, 2000.

WHEREFORE, based on the foregoing, BellSouth requests the following relief:

- 1. that the Commission initiate a docket to establish geographically deaveraged rates for unbundled network elements and network element combinations by May 1, 2000;
- 2. that other interested parties be given the opportunity to intervene and file testimony on the issues in this proceeding, copies of which should be provided to BellSouth;
- 3. that the Commission set a hearing as soon as practicable in order to meet the May 1, 2000 deadline; and
- 4. that the Commission grant such other relief as it deems just and proper.

Respectfully Submitted,

BĒLLSOUTH TELECOMMUNIÇAŢIONS, INC. Suite 821, 1600 Hampton Street Columbia, South Carolina 29201 (803) 748-8700

В́у

CARÓLINE N. WATSON

Its Attorney

March 6, 2000



MAR 0 7 2000

1		BELLSOUTH TELECOMMUNICATIONS, INC.
2		DIRECT TESTIMONY OF ALPHONSO J. VARNER ECEI
3		BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA
4		DOCKET NO.
5		MARCH 6, 2000
6		
7	Q.	PLEASE STATE YOUR NAME, YOUR POSITION WITH BELLSOUTH
8		TELECOMMUNICATIONS, INC. ("BELLSOUTH") AND YOUR
9		BUSINESS ADDRESS.
10		
11	A.	My name is Alphonso J. Varner. I am employed by BellSouth as Senior
12		Director for State Regulatory for the nine-state BellSouth region. My business
13		address is 675 West Peachtree Street, Atlanta, Georgia 30375.
14		
15	Q.	PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR BACKGROUND
16		AND EXPERIENCE.
17		
18	A.	I graduated from Florida State University in 1972 with a Bachelor of
19		Engineering Science degree in systems design engineering. I immediately
20		joined Southern Bell in the division of revenues organization with the
21		responsibility for preparation of certain investment separations studies for
22		division of revenues and for reviewing interstate settlements.
23		
24		Subsequently, I accepted an assignment in the rates and tariffs organization
25		with responsibilities for administering selected rates and tariffs including

1		preparation of tariff filings. In January 1994, I was appointed Senior Director
2		of Pricing for the nine-state region. I was named Senior Director for
3		Regulatory Policy and Planning in August 1994, and I accepted my current
4		position as Senior Director of Regulatory in April 1997.
5		
6	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
7		
8	A.	The purpose of my testimony is to present BellSouth's position on deaveraged
9		pricing for unbundled network elements ("UNEs") and certain UNE
10		combinations.
11		
12	Q.	WHAT OBLIGATION DOES THIS COMMISSION HAVE TO ESTABLISH
13		DEAVERAGED RATES FOR UNBUNDLED NETWORK ELEMENTS?
14		
15	A.	Federal Communication Commission's ("FCC") Rule 51.507 (f) requires state
16		commissions to establish different rates (prices) for elements in at least three
17		cost-related rate zones within the state to reflect geographic cost differences.
18		The FCC stayed the effectiveness of this rule on May 7, 1999. The FCC stated
19		that the stay would remain in effect until six months after the FCC released its
20		order in CC Docket No. 96-45 finalizing and ordering implementation of high-
21		cost universal service support for non-rural local exchange carriers ("LECs").
22		With the November 2, 1999 release of the FCC's order in CC Docket No. 96-
23		46, the stay of section 51.507(f) will be lifted effective May 1, 2000. As such,
24		state commissions are required to establish rates for applicable UNEs in at least
25		three geographic areas pursuant to rule 51.507(f) by May 1, 2000.

1	Q.	WHAT WOULD BELLSOUTH PROPOSE TO BE THE APPROPRIATE
2		BASIS FOR DEAVERAGING UNE PRICES?
3		
4	A.	BellSouth proposes that the appropriate basis for deaveraging UNE prices is
5		market conditions as they exist within each of the designated geographic areas.
6		The concept is that prices should vary where there are significant cost or
7		market variations. While statewide averaged UNE prices currently exist in
8		South Carolina, the purpose of deaveraging is to better reflect differences that
9		exist among the geographic areas.
10		
11	Q.	PLEASE EXPLAIN HOW BELLSOUTH PROPOSES THAT THE
12		DĒAVĒRAGED ZONES BE ESTABLISHED IN SOUTH CAROLINA.
13		
14	A.	Geographic differences and end-user markets were used as the criteria to assign
15		the existing local exchange rate groups into three zones in South Carolina.
16		Rate group costs tend to follow the zoning methodology. Generally, on a loop
17		cost basis, Zone 1 rate groups have costs less than 100% of the statewide
18		average cost, Zone 2 costs are between 100% and 150% of the average and
19		Zone 3 represents costs greater than 150% of the statewide average cost.
20		BellSouth witness Ms. Daonne Caldwell addresses in her testimony the
21		compilation of the cost data and further explains the methodology BellSouth
22		used to determine the ratio applied to the current statewide average UNE rates.
<u>2</u> 3		The existing local exchange rate groups were then mapped into one of three
2 4		zones:
25		

1		Primary Metro Areas – (e.g., Charleston, Columbia, Greenville)
2		Rate Groups six and seven $(6-7) = \text{Zone } 1$
3		
4		Secondary Metro Areas - (e.g., Aiken, Seneca, York)
5		Rate Groups four and five $(4-5) = \text{Zone } 2$
6		
7		Non-metro Areas – (e.g., Camden, Gaffney, Salem)
8		Rate Groups one through three (1-3) = Zone 3
9		
10		Once the existing rate groups were mapped to each of the three zones, the ratio
11		of the average monthly cost per loop in each zone to the state average was
12		determined. This ratio was then applied to the existing UNE loop rates
13		approved by this Commission in Docket No. 97-374-C, Order dated June 1,
14		1998 to determine the proposed deaveraged UNE rates. The proposed
15		deaveraged rates are contained in Exhibit AJV-1 to my testimony.
16		
17	Q.	PLEASE EXPLAIN WHY IT IS APPROPRIATE TO "MAP" THE
18		EXISTING RATE GROUPS TO THREE DEAVERAGED RATE ZONES.
19		
2 0	A.	"Rate group-to-zone" mapping best represents the competitive market
21		environment in South Carolina, thereby promoting competition in all areas of
22		South Carolina. Utilizing local exchange rate groups to deaverage UNEs
23		meets the requirements set forth by the FCC and provides consistency between
24		the structure of BellSouth's retail, resale and ÜNE rates. Further, it is more
25		understandable to customers because customers with similar calling areas and

1		located in the same geographic region will be in the same deaveraged zone for
2		UNE pricing. Furthermore, using existing rate groups as the basis for
3		eștablishing pricing zones results in a more balanced UNE pricing structure.
4		
5	Q.	YOU MENTIONED EARLIER THAT BELLSOUTH IS PROPOSING
6		DEAVERAGED PRICES FOR CERTAIN UNE COMBINATIONS. WHAT
7		IS BELLSOUTH'S OBLIGATION TO PROVIDE UNE COMBINATIONS
8		TO COMPETITIVE LOCAL EXCHANGE CARRIERS ("CLECs")?
9		
10	A.	Consistent with the reinstatement of FCC Rule 51.315(b), CLECs may request
11		access to network elements that BellSouth currently cômbines in its network,
12		which BellSouth may not separate except upon request. According to the FCC,
13		"currently combines" mean that such elements are in fact combined by
14		BellSouth in BellSouth's network to provide service to a particular customer at
15		a particular location. The FCC further confirmed that BellSouth presently has
16		no obligation to combine network elements for CLECs, when those elements
17		are not currently combined in BellSouth's network.
18		
19	Q.	WHY IS ÎT APPRÓPRIATÉ FOR THE COMMISSION TO CONSIDER THE
20		PRICING OF UNE COMBINATIONS IN THIS DOÇKEŢ?
21		
22	A.	It is appropriate for the Commission to establish the price of UNE
<u>2</u> 3		combinations in this proceeding because many UNE combinations involve the
24		use of the loop. Because the Commission intends to establish deaveraged rates
25		for unbundled loops, it should also establish deaveraged rates for combinations

that make use of the same loop. This requires the Commission to establish
statewide average recurring rates for combinations, which in turn would be
deaveraged. The Commission should also establish nonrecurring rates for
these combinations, which would not be deaveraged. Although the
Commission established cost-based rates for numerous network elements and
interconnection services in Docket No. 97-374-C, those rates represented the
forward-looking cost of network elements that were truly unbundled. As
explained in greater detail in Ms. Caldwell's testimony, when it comes to UNE
combinations, there may be cost differences in both recurring and nonrecurring
rates when a CLEC orders and BellSouth provisions certain combinations of
network elements that are currently combined in BellSouth's network.
Accordingly, the Commission should use this proceeding to establish rates for
combinations, which would expedite their availability to CLECs in South
Carolina.
IS BELLSOUTH PROPOSING RATES FOR ALL COMBINATIONS OF
NETWORK ELEMENTS THAT ARE CÜRRENTLY COMBINED IN
BÉLLSÖUTH'S NÉTWORK?
No. As set forth in AJV-1, BellSouth is proposing recurring and nonrecurring
rates for five UNE combinations, which represent the types of loop-port and
loop-transport combinations that CLECs have most frequently requested from
BellSouth. BellSouth makes available other combinations of network elements
consistent with its obligations under Rule 51.315(b). Once the Commission
establishes rates for the five most frequently requested combinations

Q.

A.

1		BellSouth believes that the rates for other combinations a CLEC may request
2		can be handled on a negotiated basis between the parties. Of course, to the
3		extent the parties cannot reach agreement on appropriate rates, either party
4		could ask the Commission to arbitrate the issue.
5		
6	Q.	WHAT IS BELLSOUTH ASKING THIS COMMISSION TO DO IN THIS
7		PROCEEDING?
8		
9	A.	BellSouth recommends that the Commission establish three deaveraged zones
10		in South Carolina using existing local exchange rate groups and that the rates
11		for unbundled loops be deaveraged based upon these rate groups consistent
12		with my testimony. BellSouth also recommends that the Commission establish
13		nonrecurring and recurring rates for certain combinations of network elements
14		that are currently combined in BellSouth's network and that the recurring rates
15		for those combinations be deaveraged using the same rate group methodology.
16		
17	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
18		
19	A.	Yes.
20	#199094	1
21		
22		
23		
24		
25		





SOUTH CAROLINA PROPOSED DEAVERAGED RATES FOR UNE LOOPS AND COMBINATIONS

we written tripoductor from the page that the page of	Eas. 10 10 1000 10	r	г		r ·	
UNE LOOP\$ (Recurring Rates)		Statewide Loop Rate	Zone 1	Zone 2	Zone 3	
2-wire analog voice grade loop~service fevel.1		\$.22.49	\$ 18.48	\$ 27.87	\$ 36.91	
2-wire analog voice grade loop - service level 2		\$ 26.25	\$ 21.57	\$ 32.53	\$ 43.08	
4-wire analog voice grade loop	7.44	\$ 35.86	\$ 29.47		\$ 58.85	
2-wire ISDN digital grade loop	100	\$32.47			\$ 53.29	
2-wire asymmetrical digital subscriber fine (ADSL) compatible loop		\$ 20.81	\$ 1710	\$ 25.79	\$ 34.15	
2-wire high bit rate digital subscriber line (HDSL) compatible loop		\$ 14.86	\$ 12.21	\$ 18.41	\$ 24.39	
4-wire high bit rate digital subscriber line (HDSL) compatible loop		\$ 19.73	\$ 16.21	\$ 24.45	\$ 32.38	
4-wire DS1 digital loop		\$ *** *72.55	\$ 59.61	\$ 89.90	\$ 119.06	
4-wire 56 or 64 Kbps digital grade loop		\$ 41.70	\$ 34.26	\$ 51.67	\$ 68.43	
2-wire.unbundled.copper.loop		\$ 23.00	\$ 18.90	\$ 28.50	\$ 37.75	
+ ++ +++ +++ +++ +++ + + + + + + + + +		StateWide		1		2.3
		Combination	Zone 1	Zone 2	Zone 3	200
UNE COMBINATIONS (Recurring and Non-Recurring Rates) 1		Rate				N 3
Loop/Port	20.64	4				48""
2-wire analog voice grade loop SL1 and port, Recurring	59, 57, 55,	\$24.40	\$ 20.26	\$ 21.43	\$ 37.68	E
2-wire voice grade loop	•	\$ ** ** 20.71	\$ 16.57	\$ 17.74	\$ 33.99	
2-wire port	3.65	\$. 3.69	\$ 3.69		\$ 3.69	840
NR-Installation and Disconnect-Electronic-First		\$ 7.59			* ****	700
NR-Installation and Disconnect-Electronic-Additional	- 8º A	\$ 0.40	279.1.70	A 1998		-
NR-Installation and Disconnect-Manual-First		\$ 43.19.		4	45 000	
NR-Installation and Disconnect-Manual-Additional NR-Subsequent database update - Electronic	AMMONIAN .	\$ 9.91 \$ 0.71		7.3		13.8
NR-Subsequent database update - Electronic. NR-Subsequent database update - Manual	70000	\$.0.71		A. A. S. S.	14.	L *^
Enhanced Extended Loops (EELs)		3 2.52	5 8 8/2W	* *	3/77 (A)	
2-wire analog voice grade loop SL2 and DS1 ded interoffice transport with channelization ²	2 2 2 2 2	45, 43	 		ļ	1000
Fixed 1st circuit in DS1, Recurring		\$ 269.48	\$ 264.80	\$ 275.76	\$ 286.31	
2-wire voice grade loop	1 70 - 2	\$ 26.25	\$ 21.57	\$ 32.53	\$ 43.08	
DS1 facility termination		\$ 94.98	\$ 21,37		\$ 94.98	 1 1 1
DS1 system		\$ 146.49	\$ 146.49		\$ 146.49	
Voice grade plug-in		\$ 1.76	\$ 1.76		\$ 1.76	
interoffice transport - ded - DS1 per mile, Recurring	7.7	\$ 0.7598	\$ 0.7598		\$ 0.7598	100
Rer additional circuit in same DS1, Recurring		\$ 28.01	\$ 23.33	\$ 34.29	\$ 44.84	7.7
2-wire Voice grade loop		\$ 26.25	\$ 21.57	\$ 32.53	\$ 43.08	
Voice grade plug-in		35~ ¾ 1.76	\$ 1.76		\$ 1.76	1
NR-Installation and Disconnect-Electronic-First		\$ 25.31	1,000	1 2200	N	
NR-Installation and Disconnect-Electronic-Additional		S 24.79		100		-15
NR-Installation and Disconnect-Manual-First	× /**, *	\$ 81.85	10.75%	* 5 mil*	. 88	1
NR-Installation and Disconnect-Manual-Additional		\$ 43.81			A	
4-wire analog voice grade loop and DS1 ded interoffice transport with channelization 2			7 44 7 		1	
Fixed 1st circuit in DS1, Recurring	200 000	\$ 280.53	\$ 274.14	\$ 289.11	\$ 303.52	". S"
4-wire voice grade loop		\$ 35.86	\$ 29.47	\$ 44.44	\$ 58.85	anto I "
DS1 facility termination		\$ 94.98	\$ 94.98		\$.94.98	****
DS.1 system	Section (Contract)	\$ 146.49	\$ 146.49		\$ 145.49	35.5
Volce grade plug-in		\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	1
Interoffice transport - ded - DS1 per mile, Recurring	E Shoots &	\$0.7598*	\$ 0.7598		\$ 0.7598	435
Per additional circuit in same DS1, Recurring	5 Vac - 1	\$ 39.06	\$ 32.67		\$ 62.05	0.00
4-wire volce grade loop	22.2	\$ 35.86	\$ 29.47	\$ 44.44	\$ 58.85	
Voice grade plug-in	AND SOURCE	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	A E
NR-Installation and Disconnect-Electronic-First NR-installation and Disconnect-Electronic-Additional	*	\$ 25.31 \$24.79			700	
NR-Installation and Disconnect-Manual-First	a Continue of	*\$ B1,85				
. NR-installation and Disconnect-Manual-Additional	1. 2. 2	\$ 43.81				
DS0 digital 56 or 64 kbps loop and DS1 ded Interoffice transport with channelization ²	9,0	* A *				T
Fixed 1st circuit in DS1, Recurring		\$ 286.37	\$ 278.93	\$ 296.34	\$ 313,10	
DS0 56 or 64 kbps loop		\$ 7 41.70	\$ 34.26	\$ 51.67	\$ 68,43	98 x
DS1 facility termination		\$ 94.98	\$ 94.98	\$ 94.98	\$ 94.98	
DS1 system		5 146.49	S. 146.49	\$ 146.49	\$ 146.49	
Voice grade plug-in		\$ 3.20	3 3.20	\$ 3.20	\$ 3.20	F
Interoffice transport - ded - DS1 per mile, Recurring	S . * 3	\$ 0.7598	\$ 0.7598		\$ 0.7598	
Per additional circuit in same DS1, Recurding		\$ 44.90				
DS0 56 or 64 kbps.loop		\$ 41.70			\$ 68.43	
Voice grade plug-in	*****	\$ * 3.20	\$ 3.20	\$ 3.20	\$ 3.20	1
NR-Installation and Disconnect-Electronic-First		\$ 25.31	. * %			Sec. 15.
NR-Installation and Disconnect-Electronic-Additional	No. 200 42	\$ 24.79	47.00	No. 12.1		
NR-Installation and Disconnect-Manual-Eirst	A 40.	\$. "81.85	200	8 *** C.J.	5 7 1 7	A
NR-Installation and Disconnect-Manual-Additional		"\$ *43.81`	3***			
DS1 digital loop and DS1 ded interoffice transport 2	S. 23					W
Fixed, Recurring *	2 0 0 00 X	\$ 167.53	\$ 154.59		\$ 214.04	20
DS1 loop	W 74.8	\$. 72.55	\$ 59.61			
DS1 facility termination		\$. " 94.98	\$ 94.98			
Interoffice transport - ded - DS1 per mile, Recurring	22.31	4× «× 0.7598×	\$ 0.7598	\$ 0.7598		
NR-Installation and Disconnect-Electronic-First	- L	3 25.31.				
NR-installation and Disconnect-Electronic-Additional	<u> </u>	\$" "24.79"		9.0		
NR-Installation and Disconnect-Marital-First NR-Installation and Disconnect-Manual-Additional	34 3 3	\$ 81,85		480.00		
* * * * * * * * * * * * * * * * * * *		\$ 13.81	**************************************	W. Alekarik	2 a 2 3 box 2 500	<u> </u>
				L		. 1

Zone Make-up Zone 1 (RG 6-7) Zone 2 (RG 4-5) Zone 3 (RG 1-3)

See attached sheets for calculations to support combinations in each Zone.

²Combination rate includes the local loop (loop from BellSouth's central office to end-user's premises), interoffice fransport (transport between Bellsouth's offices), and channelization necessary for 2-wire, 4-wire, and DSO combinations. A collocation cross-connect may also need to be purchased to complete the circuit.

Interconnection Pricing
File: SCDeRt1M.xis

A	œ	O	O	m
	SL1 Combo	Line Port		
	Loop Rate in	Loop Rate in Rate in SC	Proposed	
	SC Combo	Combo	Deaveraged	Deaveraged Calculation for Proposed
Loop/Port	Study	Study	Rates	Deaveraged Rate
State-wide Average Rate	\$ 20171	\$ 3.69	\$ 24.40	24.40 D=B+C
Zone 1 Deaveraged Rate \$	\$ 16.57	\$ 3.69	\$	D=(\$20.71 x 82.17%)+C
Zone 2 Deaveraged Rate \$	\$ 17.74	\$ 3.69	49	21.43 D=(\$20.71 x123.92%)+C
Zone 3 Deaveraged Rate \$	\$ 33.99	\$ 3.69 \$		37.68 D=(\$20.71 x 164.11%)+C

	Calculat	ions for Zone 1	Enhanced Exte	Calculations for Zone 1 Enhanced Extended Loop Combinations	binations			
A	В	ဂ	0	m	וד	ຜ	Ξ	-
		The second secon	Voice grade	56 or 64 Kbps	Commission	Commission		
		1/0	plug-in from	plug-in from	Approved	Approved		Calculation
		Multiplexer in	Multiplexer	Multiplexer	Interoffice	Interoffice	Proposed	for Proposed
	Deaveraged	SC Combo	Study in SC	Study in SC	DS1 Fixed	DS1 per Mile	Deaveraged	Deaveraged
	Loop Rate	Study	Combo Study	Combo Study	Rate	Rate	Zone 1 Rate	Zone 1 Rate
Enhanced Extended Loops								
2-wire analog voice grade loop and DS1								
dedicated interoffice transport with								
channelization								
'Fixed 1st Circuit in DS1	\$ 21.57	\$ 146.49	\$ 1.76		\$.94.98		\$ 264,801	264,80° H≓B+C+D+F
Interoffice Transport - ded - DS1 per mile						\$ 0.7598	\$ 0.7598	# = G
Per additional Circuit in same DS1	\$ 21.57		\$ 1.76				\$ 23.33	H=B+D
4-wire analog voice grade loop and DS1								11000
dedicated interoffice transport with								
channelization					!			
Fixed 1st Circuit in DS1	\$ 29.47	\$ 146.49	\$ 3.20		\$ 94.98		\$ 274.14	274.14 H=B+C+D+F
Interoffice Transport - ded - DS1 per mile						\$ 0.7598	\$ 0,7598 H=G	H=G
Per additional Circuit.in same DS1	\$ 29.47		\$ 3.20				\$ 32.67	H=B+D
DS0 digital 56 or 64 kbps loop and DS1								
dedicated interoffice transport with			•					
channelization								
Fixed 1st Circuit in DS1	\$ 34.26	\$ 146.49		\$ 3.20	\$. 94.98		\$ 278.93	278.93 H=B+C+E+F
Interoffice Transport - ded - DSn per mile						\$ 0.7598	\$ 0.7598 H=G	H=G
Per additional Circuit in same DS1	\$ 34.26			\$ 3.20			\$ 37.46	H=B+E
DS1 digitaliloop and DS1 dedicated								and there are
Interoffice transport								
1Fixed	\$ 59:61				\$ 94.98		154.59	H=B+G
Interoffice Transport - ded - DS1 per mile						\$ 0.7598	\$ 0.7598	H_G



	Calculat	ions for Zone 2	Enhanced Exte	Calculations for Zone 2 Enhanced Extended Loop Combinations	binations			
A	8	င	D	m	TI	G -	Ι	_
			Voice grade	56 or 64 Kbps	Commission	Commission		
		1/0	plug-in from	plug-in from	Approved	Approved		Calculation
		Multiplexer in	Multiplexer	Multiplexer	Interoffice	Interoffice	Proposed	for Proposed
	Deaveraged	SC Combo	Study in SC	Study in SC	DS1 Fixed	DS1 per Mile	<u></u>	Deaveraged
	Loop Rate	Study	Combo Study	Combo Study	Rate	Rate	Zone 2 Rate	Zone 2 Rate
Enhanced'Extended Loops								
2-wire analog voice grade loop and DS1				-				
dedicated interoffice transport with								
channelization								
Fixed 1st Circuit in DS1	\$ 32.53	\$ 146.49	\$ 1.76		\$ 94.98		\$ 275.76	275,76 H=B+C+D+F
Interoffice Transport - ded - DS1 per mile						\$ 0.7598	\$ 0.760	ਜ਼=G
Per additional Circuit in same DS1	\$ 32.53		\$ 1.76				\$ 34.29 H=B+D	H=B+D
4-wire analog voice grade loop and DS1								
dedicated interoffice transport with								
channelization			•					
Fixed 1st Circuit in DS1	\$ 44.44	\$ 146.49	\$ 3.20		\$ 94.98		\$ 289.11	289.11 H=B+C+D+F
Interoffice Transport - ded - DS1 per mile						\$ 0.7598	'\$ 0.7598 H=G	H=G
Per additional Circuit in same DS:1	\$ 44.44		\$ 3.20				\$ 47.64	H=B+D
DS0 digital 56 or 64 kbps loop and DS1								,
dedicated interoffice transport with								
channelization							· ·	
Fixed 1st Circuit in DS1	\$ 51.67	\$ 146.49		\$ 3.20	\$ 94.98		\$ 296,34	H=B+C+E+F
Interoffice Transport - ded - DS1 perimite						\$ 0.7598	\$ 0.7598 H=G	H-G
Per additional Circult in same DS1	\$ 51.67			\$ 3.20			\$ 54,87	H=B+E
				100				
DS1 digital loop and DS1 dedicated								المراجعة الم
Interornee danaport				7.7				
	Φ 08:80				\$ 94.80	2 7500		H=B+G
Interoffice-Transport - ded - DS1 per mile						\$ 0.7598	\$ 0.7598 H=G	H=G



	Calcu	lation	s for Zone 3	Enhanced Exte	Calculations for Zone 3 Enhanced Extended Loop Combinations	binations			
A	В		ဂ	ם	m	п	ତ	Н	_
And the state of t				Voice grade	56 or 64 Kbps	Commission	Commission		
			1/0	plug-in·from	plug-in from	Approved	Approved		Calculation 1
	Deswerseed		Multiplexer in	Multiplexer	Multiplexer	Interoffice	Interoffice	Proposed	for Proposed
	Loop Rate		Study	Combo-Study	Combo Study	Rate	Rate	Zone 3 Rate	Zone 3 Rate
Enhanced Extended Loops									
2-wire analog voice grade loop and DS1									
dedicated interoffice transport with									
channelization									
Fixed 1st Circuit in DS1	\$ 43.08	\$ 80	146.49	\$ 1.76		\$ 94.98		\$ 286.31	286.31 H=B+C+D+F
Interoffice Transport - ded - DS1 per mile							\$ 0.7598	\$ 0.7598 H=G	H=G
Per additional Circult in same DS1	\$ 43.08	8		\$ 1.76				\$ 44.84	44.84 H=B+D
4-wire analog voice grade loop and DS1		\downarrow							100
dedicated interoffice transport with									
channelization		_							
Fixed 1st Circuit in DS1	\$ 58.85	85 \$	146.49	\$ 3.20		\$ 94.98			303.52 H=B+C+D+F
Interoffice Transport - ded - DS1 per mile		_					\$ 0.7598	\$ 0,7598 H=G	H=6
Per additional Circuit in same DS1	\$ 58.85	8		\$ 3.20				\$ 62.05	62.05; H=B+D
DS0-digital 56 or 64 kbps loop and DS1				3					
dedicated interoffice transport with									
channelization					!				
Fixed 1st Circuit in DS1	\$ 68.43	43 \$	146.49		\$ 3.20	\$ 94.98		\$ 313.10	313.10 H=B+C+E+F
Interoffice Transport - ded DS1 per mile							\$ 0.7598	\$ 0.7598 H=G	H=G
Per additional Circuit in same DS1	\$ 68.43	3			\$ 3.20			\$ 71.63	1.63 H=B+E
		-							
DS1 digital loop and DS1 dedicated					*				
interoffice transport									
Fixed	\$ 119.06	66				\$ 94.98		214,04	H=B+G
Interoffice Transport - ded - DS1 per mile		\vdash					\$ 0.7598	\$ 0.7598 H=G	H=G





1	BELLSOUTH TELECOMMUNICATIONS, INC.
2	DIRECT TESTIMONY OF D. DAONNE CALDWELL
3	BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA
4	DOCKET NO.
5	MARCH 6, 2000 MAR 0 7 2000
6	ECEIVE
7	
8	Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.
9	
10	A. My name is D. Daonne Caldwell. My business address is 675 W. Peachtree St.,
11	N.E., Atlanta, Georgia. I am a Director in the Finance Department of BellSouth
12	Telecommunications, Inc. (hereinafter referred to as "BellSouth"). My area of
13	responsibility relates to economic costs.
14	
15	Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR EDUCATIONAL
16	BACKGROUND AND WORK EXPERIENCE.
17	
18	A. I attended the University of Mississippi, graduating with a Master of Science
19	Degree in mathematics. I have attended numerous Bell Communications
20	Research, Inc. ("Bellcore") courses and outside seminars relating to service cost
21	studies and economic principles.
22	
23	My initial employment was with South Central Bell in 1976 in the Tupelo,
24	Mississippi, Engineering Department where I was responsible for Outside Plant
25	Planning. In 1983, I transferred to BellSouth Services, Inc. in Birmingham,

1	Alabama, and was responsible for the Centralized Results System Database. I
2	moved to the Pricing and Economics Department in 1984 where I developed
3	methodology for service cost studies until 1986 when I accepted a rotational
4	assignment with Bellcore. While at Bellcore, I was responsible for development
5	and instruction of the Service Cost Studies Curriculum including courses such as
6	"Concepts of Service Cost Studies", "Network Service Costs", "Nonrecurring
7	Costs", and "Cost Studies for New Technologies". In 1990, I returned to
8	BellSouth and was appointed to a position in the cost organization, now a part of
9	the Finance Department, with the responsibility of managing the development of
10	cost studies for transport facilities, both loop and interoffice. My current
11	responsibilities encompass testifying in cost-related dockets, cost methodology
12	development, and the overall coordination of cost study filings.
13	

4 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

40 4 77

A. The purpose of my testimony is to explain how BellSouth determined the proposed
 rátios ûséd to déaverage the state-wide rates that the Public Service Commission of
 South Carolina ("Commission") established in Docket No. 97-374-C for

19 unbundled loops.

20

21

22

15

Additionally, I present the cost study results for certain combinations of network elements, the recurring rates for which will also be deaveraged using these ratios.¹

²⁴ BellSouth is submitting a cost study results for the following combinations; 2-wire loop-port, 2-wire loop-DS1 dedicated interoffice transport, 4-wire loop-DS1 dedicated interoffice transport, 4-wire 56/64 Kbps digital loop-dedicated DS1 interoffice transport, and 4-wire DS1 digital loop-dedicated DS1 interoffice transport.

1	The study, both in paper form and on a CD-ROM, is attached to this testimony as
2	Exhibit DDC-1. Included in the study are an executive overview, a summary of
3	results, element descriptions, factor development, TELRIC Calculator© input and
4	outputs, and investment development work papers.
5	©1997 BellSouth Çorporațion, All Rights Reserved
6	
7	Q. PLEASE EXPLAIN THE PROCESS BELLSOUTH USED TO
8	DETERMINE THE RATIOS IT IS PROPOSING TO USE TO
9	DEAVERAGE LOOP COSTS IN SOUTH CAROLINA.
0	
11	A. The process is relatively straightforward:
2	
13	1) Develop loop costs by wire center
4	2) Partition the wire centers in South Carolina into rate groups based upon the
15	General Subscriber Tariff. BellSouth witness, Mr. Varner, explains why this
16	method of classifying wire centers is appropriate for deaveraging purposes.
17	3) Classify rate groups into one of three zone designations. BellSouth witness,
8	Mr. Varner, addresses how the rate group to zone mapping was determined.
9	4) Calculate the average monthly cost per loop in each zone.
20	5) Compare the zone average to the state average to determine the ratio for the
21	zone.
22	
23	Q. HOW DID BELLSOUTH ACCOMPLISH THE FIRST STEP IN THE

PROCESS, THE DEVELOPMENT OF LOOP COSTS BY WIRE CENTER?

24

1	A.	BellSouth utilized the Benchmark Cost Proxy Model ("BCPM") presented to this
2		Commission in the Universal Service Fund ("USF") proceeding, Docket No. 97-
3		239-C. Because this Commission has adopted the BCPM for determining the level
4		of the USF, BellSouth decided to also use BCPM to develop the ratios for
5		geographic deaveraging in this proceeding. BellSouth concluded that use of the
6		BCPM with Commission-ordered input values would be the least contentious
7		method of deaveraging statewide loop rates in South Carolina and thus, would
8		expedite the process, particularly because deaveraged rates must be place by May
9		1, 2000.
10		
11	Q.	WHAT WERE THE RESULTS OF BELLSOUTH'S CALCULATIONS?
12		
13	A.	The ratios BellSouth determined were:
14		
15		Zone 1 (Rate Groups 7-6): 82.17% of statewide average
16		Zone 2 (Rate Groups 5-4): 123.92% of statewide average
17		Zone 3 (Rate Groups 3-1): 164.11% of statewide average
18		
19		Exhibit DDC-2, attached to this testimony, displays the output of the BCPM and
20		the subsequent calculation of the ratios for each of the zones.
<u>2</u> 1		
22	Q.	YOU STATED THAT THESE RATIOS WILL BE USED TO DEAVERAGE
23		LOOPS. IS ÎT APPROPRIATE TO DE AVERAGE OTHER UNBUNDLED
24		NETWORK ELEMENTS?

1	A. No. The cost of the loop varies by geographic location. However, other UNEs
2	either do not display the same level of cost variation by geographic location or
3	have price structures that already account for geographic cost differences. Thus,
4	BellSouth believes that the local loop is the only network element that should be
5	deaveraged in this proceeding.
6	
7	For example, switching does not vary significantly by geographic location. None
8	of the factors that make the loop cost vary are present with respect to switching
9	cost calculations. The physical characteristics of the loop and the placement costs
10	associated with that loop vary by geographic location due to weather, terrain, and
11	distance. However, these factors do not impact switching costs to any great
12	degree. Another factor, customer density, also has little impact on switching costs
13	because the modularity of digital switching equipment allows BellSouth to grow
14	switches as demand dictates. Also, remote switch entities can be deployed to serve
15	pockets of customers. However, there is one factor that contributes to the variation
16	in switching costs, the vendor. The two dominant switch vendors, Lucent and
17	Nortel, have different switch architectures. The result is that the distribution
18	between traffic sensitive (\$/Minute of Use) and non-traffic sensitive (port) costs
19	differs depending on the vendor purely because of this difference in architecture,
20	not due to any geographic difference.
21	
22	Additionally, switching cannot be viewed in the same manner as local loops
23	because logically one cannot isolate one switch from the network. The switch is a
24	part of a total integrated network designed to handle a call from the originating
25	switch entity to the terminating switch entity. To segment individual switches

1		based on individual cost differences ignores the interdependencies between switch
2		entities. This is clearly a problem for remote switches that are dependent on a host
3		switch for interoffice call processing.
4		
5		The cost of other unbundled network elements may vary by geographic location,
6		but these cost differences are reflected in existing rate structures without the need
7		for deaveraging. An example is interoffice transport. The rate structure for
8		interoffice transport is on per mile basis. This rate structure already accounts for
9		geographic differences by eliminating length from the equation. Thus, there is no
10		reason to include interoffice transport in the deaveraging scheme. Of course, some
11		of the physical attributes of the interoffice route will impact the costs just as they
12		do in the loop, e.g., the type of placement. However, because the cost is expressed
13		on a per unit (mile) basis, these differences are negligible.
14		
15	Q.	YOU INDICATED THAT BELLSOUTH CONDUCTED COST STUDIES
16		FOR COMBINATIONS SUBJECT TO DEAVERAGING. WHY WAS THIS
17		NECESSARY?
18		
19	A.	In the UNE Docket No. 97-374-C, BellSouth only presented studies for elements
20		that were truly unbundled. However, with the reinstatement of FCC Rule
21		51.315(b) and issuance of the FCC's 319 UNE Remand Order, BellSouth is
22		obligated to provide combinations of network elements that are currently
23		combined in its network. Any of these combinations that make use of a loop are
24		also subject to deaveraging.

Recurring costs for most combinations can be determined by simply adding the
appropriāte rates established in Docket No. 97-374-C, because the underlying
recurring cost study inputs are unaffected by whether the elements are provided on
an unbundled başiş or in combined form. However, that is not the case for other
combinations of unbundled network elements, such as a 2-wire voice grade loop-
port combination. Because it was assumed that these unbundled network elements
would be purchased individually to create the final product that would be sold to
the end-user, direct integration of the loop into the BellSouth switch was not
appropriate, and thus Integrated Digital Loop Carrier ("IDLC") technology was
excluded from the unbundled loop studies. Additionally, both the unbundled loop
and unbundled port contained the cost of terminating a loop or port to a main
distributing frame ("MDF"), which are valid assumptions when one is talking
about loop and ports being provided on an unbundled basis. However, in the loop-
port combination scenario IDLC is assumed and only one MDF termination is
required for a 2-wire loop-port combination. Only those combinations whose
recurring cost would be changed because of the combination assumption were
studied.
Additionally, BellSouth studied the components required for channelization; i.e.,
the multiplexer system and plug-ins. These elements are required in the loop-
transport combinations.

Q. DID BELLSOUTH ALSO STUDY NONRECURRING COSTS FOR

COMBINATIONS?

1	A.	Yes. Even though nonrecurring costs are not subject to deaveraging, BellSouth felt
2		that the nonrecurring costs should also be included for combinations to provide a
3		complete picture of the costs. Nonrecurring costs are one-time expenses
4		associated with provisioning, installing and disconnecting the network capability.
5		These costs typically include five major categories of activity: service inquiry,
6		service order, engineering, connect and test, and technician travel time. However,
7		because one of the underlying assumptions of the combination study was that the
8		combination reflects a pre-existing customer, only service order and limited
9		connect and test activities are relevant. Thus, the cost is substantially less than the
10		sum of the nonrecurring rates established in the UNE docket. For example, the
11		sum of the nonrecurring rates for a 2-wire unbundled loop (SL1) and a 2-wire
12		unbundled port is \$95.42 (\$70.44+\$24.98). BellSouth has determined the
13		nonrecurring cost associated with converting an existing retail service to a 2-wire
14		loop-port combination to be \$1.59.

16 Q. WHAT COST METHODOLOGY IS USED IN BELLSOUTH'S 17 COMBINATION COST STUDY?

18

25

A. The study methodology accepted by Commission Order No. 98-214 in Docket No. 97-374-C dated June 1, 1998 is used to determine the costs outlined in Exhibit DDC-1. This Order established rates for numerous network capabilities, ranging from 2-Wire Analog Loop to Physical Collocation. In its discussion of the cost studies submitted by BellSouth and accepted by the Commission, the Commission states; "BellSouth's cost study developed 'economic costs', which reflects

1		The FCC developed the term "economic costs". In its Order, the FCC states, "In
2		practice, this will mean that prices are based on the TSLRIC ² of the network
3		element, which we will call Total Element Long Run Incremental Cost (TELRIC),
4		and will include a reasonable allocation of forward-looking joint and common
5		cost." (Footnote added)
6		•
7	Q.	PLEASE PROVIDE SOME BACKGROUND TO DOCKET NO. 97-374-C.
8		
9	A.	BellSouth filed cost studies to support permanent prices for unbundled elements.
10		The studies were filed electronically with complete documentation. With these
11		studies, BellSouth introduced a new cost model, the TELRIC Calculator©. The
12		TELRIC Calculator© converts material prices and labor work times to cost. The
13		Commission accepted the TELRIC Calculator® as a viable model to determine the
14		TELRIC economic cost associated with network capabilities. However, the
15		Cômmission did make some adjustments to the inputs filed by BellSouth.
16		
17	Q.	ARE THE ADJUSTMENTS TO BELLSOUTH'S INPUTS ORDERED BY
18		THE COMMISSION INCORPORATED IN THE COMBINATION COST
19		STUDY?
20		
21		

²² TSLRIC stands for Total Service Long Run Incremental Cost. The TSLRIC methodology is basically identical to the TELRIC methodology once consideration is given to the purpose of the study. TSLRIC methodology is used to determine the cost of a service whereas the TELRIC methodology is used in determining the cost of a network element. The main difference is the inclusion of shared costs. These costs are excluded in a TSLRIC study. However, the FCC recognized that certain shared costs that would be excluded in a TSLRIC analysis are appropriate in a TELRIC study.

1	A.	Yes. The Commission ordered inputs that are relevant to the cost elements in this
2		proceeding are included. The cost studies include the Commission-ordered cost of
3		money, depreciation lives, shared and common factors, and fall-out rates.
4		
5	Q.	PLEASE ELABORATE ON THE ADJUSTMENTS BELLSOUTH MADE
6		TO THE COST STUDY TO FULFILL THE COMMISSION ORDER NO.
7		98-214 IN DOCKET NO. 97-374-C.
8		
9	A.	I will address each of the adjustments made in this filing and reference the
10		appropriate discussion from the South Carolina Commission's Order. The cost
11		study follows the intent of each Commission adjustment.
12		
13		Cost of Capital – On page 22, the Commission states that "appropriate inputs to
4		the study will be the capital structure, cost of debt, and cost of equity presently
15		approved by the Commission for BellSouth." This equates to a 35.82%
16		debt/64.18% equity structure, 7.47% cost of debt and 12.75% cost of equity. The
17		overall cost of capital is then 10.86%, which was utilized in BellSouth's study.
18		
9		Depreciation – The Commission, on page 23, states "Depreciation rates approved
20		by this Commission should be used as input into the TELRIC process." These are
21		the rates used to generate the costs results presented in Exhibit DDC-1.
22		
23		Shared and Common Costs - The Commission accepted BellSouth's shared cost
24		calculation. However, the Commission did adjust the common cost factor. On
)5		nage 24 of Order 08,214, the Commission states: "Commetitive common costs

1		should be less over time, on a forward looking basis." Thus, the Commission
2		lowered the factor to 4.79%. This is the value used in to generate the results
3		presented in Exhibit DDC-1.
4		
5		Fall-out Factors - The Commission stated that "a Fall-out Factor of 5% is the
6		most appropriate." (Page 24 of Order No. 98-214) This adjustment has been made
7		in BellSouth's study.
8		
9		It is important to remember that even though the Commission made several input
10		modifications, they accepted the TELRIC Calculator© as an appropriate means of
11		determining BellSouth's costs associated with making an investment and with
12		provisioning a network capability.
13		
14	Q.	PLEASE SUMMARIZE YOUR TESTIMONY.
15		
16	A.	The ratios BellSouth calculated to deaverage statewide rates were developed using
17		the $\mathring{B}\mathring{C}PM$ populated with Commission-approved inputs. These ratios provide an
18		appropriate mechanism to deaverage rates in South Carolina. Additionally, the
19		combination cost study filed in this proceeding determines South Carolina-specific
2 0		TELRIC economic costs for certain combinations, which were developed using the
21		basic study methodology and approved input values previously authorized by this
22		Commission in Docket No. 97-374-C.
23		
24	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?

1 A. Yes.